

SN. 10/635,720

ATTORNEY DOCKET NO. MATS:027A

IN THE CLAIMS

The status of the claims as presently amended is as follows:

1-27. (Canceled)

28. (Currently Amended) A linear motor comprising:

- (a) a tubular outer yoke;
- (b) a tubular inner yoke disposed in said outer yoke;
- (c) a coil provided to one of said outer yoke and said inner yoke;
- (d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and
- (e) a tubular vibrator made of magnetic material and supporting said permanent magnet, wherein said vibrator is located between said outer yoke and said inner yoke.

29. (Currently Amended) The linear motor as defined in Claim 28, ~~said motor~~ further comprising a slit ~~formed~~ extended extending along a circumference direction of said vibrator.

30. (Currently Amended) The linear motor as defined in Claim 28, wherein said permanent magnet is fixed to a side face of said vibrator facing said coil.

31. (Currently Amended) The linear motor as defined in Claim 28, wherein electrical resistance of said vibrator is not less than 100 $\mu\Omega \cdot \text{cm}$.

32. (Currently Amended) The linear motor as defined in Claim 28, wherein permeability of said vibrator is more than 10 times as that of vacuum.

33. (Currently Amended) The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising iron and chrome.

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34. *(Currently Amended)* The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising 80-90 wt% of iron and 10-20 wt% of chrome.

35. *(Currently Amended)* The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising iron, chrome, and aluminum.

36. *(Currently Amended)* The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising 75-88 wt% of iron, 10-20 wt% of chrome, and 2-5 wt% of aluminum.

37. *(Currently Amended)* The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising iron and silicon.

38. *(Currently Amended)* The linear motor as defined in Claim 28, wherein said vibrator is made of material comprising nickel and iron.

39. *(Currently Amended)* The linear motor as defined in Claim 28, ~~said motor~~ further comprising a slit provided on a side face of said vibrator.

40. *(Currently Amended)* The linear motor as defined in Claim 39, wherein said slit is long and narrow along a vibrating direction of said vibrator.

41. *(Currently Amended)* The linear motor as defined in Claim 28, ~~said motor~~ further comprising a section made of electrically insulating resin and provided on a side face of said vibrator.

42. *(Currently Amended)* The linear motor as defined in Claim 28, wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles.

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43. (*Currently Amended*) The linear motor as defined in Claim 28, wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles and electrically insulating resin.

44. (*Currently Amended*) The linear motor as defined in Claim 28, wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles, and has an electrically insulating layer on a surface thereof.

45. (*Previously Presented*) The linear motor as defined in Claim 44, wherein the electrically insulating layer is made of inorganic material.

46. (*Previously Presented*) The linear motor as defined in Claim 42, wherein said at least one of said outer yoke and said inner yoke is divided in a circumference direction.

47. (*Previously Presented*) The linear motor as defined in Claim 42, wherein an insulating layer is provided on a bonding face of said at least one of said outer yoke and said inner yoke.

48. (*Currently Amended*) ~~A~~The linear motor comprising:

(a) ~~— a tubular outer yoke;~~

(b) ~~— a tubular inner yoke disposed in said outer yoke;~~

(c) ~~— a coil provided to one of said outer yoke and said inner yoke;~~

(d) ~~— a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and~~

(e) ~~— a tubular vibrator supporting said permanent magnet~~ as defined in claim 28, wherein said permanent magnet is fixed to said vibrator on a side of one of said outer yoke and said inner yoke ~~which ever~~ that includes said coil.

49. (*Currently Amended*) ~~A~~The linear motor comprising:

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- ~~(a) a tubular outer yoke;~~
- ~~(b) a tubular inner yoke disposed in said outer yoke;~~
- ~~(c) a coil provided to one of said outer yoke and said inner yoke;~~
- ~~(d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and~~
- ~~(e) a tubular vibrator supporting said permanent magnet as defined in claim 48, wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles.~~

50. (Currently Amended) A compressor including a linear motor, said motor comprising:

- (a) a tubular outer yoke;
- (b) a tubular inner yoke disposed in said outer yoke;
- (c) a coil provided to one of said outer yoke and said inner yoke;
- (d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and
- (e) a tubular vibrator made of magnetic material and supporting said permanent magnet, wherein said vibrator is located between said outer yoke and said inner yoke.

51. (Currently Amended) A compressor including a linear motor, said motor comprising:

- (a) a tubular outer yoke;
- (b) a tubular inner yoke disposed in said outer yoke;
- (c) a coil provided to one of said outer yoke and said inner yoke;
- (d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and
- (e) a tubular vibrator made of magnetic material supporting said permanent magnet, wherein said permanent magnet is fixed to said vibrator on a side of one of said outer yoke and said inner yoke ~~whichever that~~ includes said coil.

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52. (*Currently Amended*) A compressor including a linear motor, said motor comprising:

- (a) a tubular outer yoke;
- (b) a tubular inner yoke disposed in said outer yoke;
- (c) a coil provided to one of said outer yoke and said inner yoke;
- (d) a ring shaped permanent magnet located between said outer yoke and said inner yoke, and vibrating in response to a magnetic flux produced by said coil; and
- (e) a tubular vibrator made of magnetic material supporting said permanent magnet, wherein at least one of said outer yoke and said inner yoke is a compression-formed body made of metal magnetic particles.